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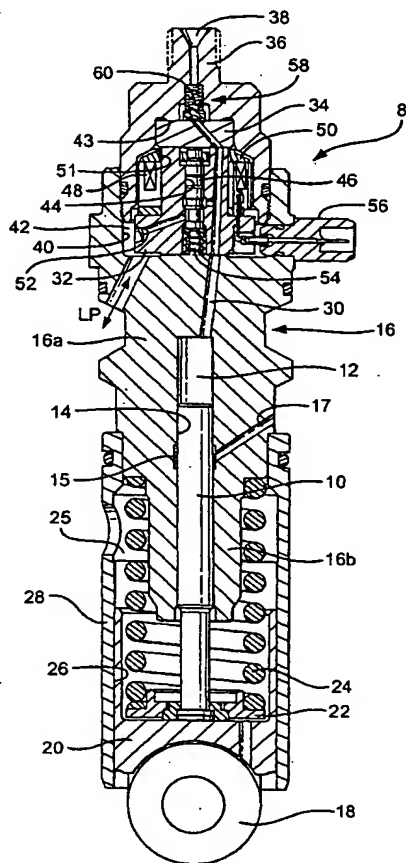
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(54) Title: COMMON RAIL FUEL PUMP



**(57) Abstract:** A common rail fuel pump for an internal combustion engine includes a pumping plunger (10) that is reciprocable within a plunger bore (14) provided in a pump housing (16) under the influence of a drive arrangement (18, 20) to cause fuel pressurisation within a pump chamber (12). An inlet metering valve (46) is operable to meter the quantity of fuel supplied to the pump chamber (12) during the return stroke of the plunger (10). An outlet valve (58) controls the supply of pressurised fuel from the pumping chamber (12) through an outlet passage (30) to the common rail fuel volume in circumstances in which the inlet metering valve is closed. The outlet passage (30) has a pump outlet (38), from where fuel is supplied to the common rail fuel volume. The inlet metering valve (46), the plunger (10) and the pump outlet (38) are arranged in axial alignment, providing a compact and lightweight pump for installation in existing and purpose-built engines.



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